

REMARKS

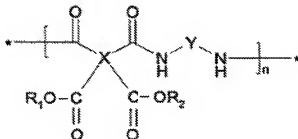
At the outset, the Examiner is thanked for the review and consideration of the pending application. The Office Action dated December 30, 2010 has been received and its contents carefully reviewed.

In the Office Action, claims 1 and 3 are rejected under 35 USC § 103(a) for allegedly being obvious over US Patent Publication 20020055610 (herein “*Okada*”) in view of US Patent 5,474,876 (herein “*Haehnle*”). The Applicant respectfully traverses the rejection.

In order to establish *prima facie* obviousness of the claimed invention, all the elements must be taught or suggested by the prior art. The combined teachings of *Okada* and *Haehnle* fail to teach or suggest every element of claims 1 and 3, and thus, cannot render these claims obvious.

Claim 1 recites, “polyimide precursor having the structure in the following Chemical Formula 1:

<Chemical Formula 1>

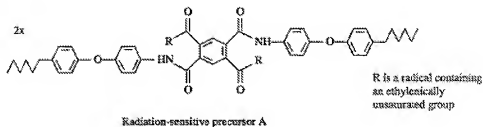


...where...R₁ and R₂ are,
independent of each other, a hydrogen atom or an organic group having 1 to 20 carbon atoms
including one or more ethylenically unsaturated bond(s), provided that R₁ and R₂ are not
hydrogen atoms at the same time.”

Okada fails to teach or suggest at least these features of claim 1. Applicants' representative explained during the telephone interview of October 21, 2010 that *Okada* fails to teach or suggest "R₁ and R₂ are, independent of each other, a hydrogen atom or an organic group having 1 to 20 carbon atoms including one or more ethylenically unsaturated bond(s), provided that R₁ and R₂ are not hydrogen atoms at the same time." The Examiner agreed.

In order to cure the deficiency of *Okada*, the Office Action relies on *Haehnle*. This combination, however, fails to establish *prima facie* case of obviousness.

Haehnle discloses the following structure:



See *Haehnle*, page 2.

It appears that the Office equates R group of the above “Radiation-sensitive precursor A” with “R₁ and R₂” of Chemical Formula 1 as recited in claim 1. Applicants respectfully disagree. *Haehnle* does not specifically teach or suggest that an oxygen atom is located at the end of R group thereby the R group of *Haehnle* can correspond to “R₁O” or “OR₂” of claim 1. Accordingly, *Haehnle* cannot cure the deficiency of *Okada*.

In addition, *Okada* only discloses a polyamic acid structure where “R₁ and R₂ are hydrogen atoms at the same time.” See *Okada*, ¶¶ [0037], [0042], [0074] and [0088]. Nowhere does *Okada* teach or suggest that R₁ and R₂ can be anything other than a hydrogen atom. Thus, one of ordinary skill in the art would not have been motivated to modify R₁ and/or R₂ with anything disclosed in *Haehnle*. This is particularly true in light of the fact that *Haehnle* states the preferred configuration of the above identified “Radiation-sensitive precursor A” compound simultaneously employs a hydrogen atom at both the “R₁ and R₂” position similar to *Okada*. See *Haehnle*, col. 3, line 50 - col. 5, line 20.

Furthermore, as discussed above, *Haehnle* fails to teach or suggest an oxygen atom located at the end of R group that corresponds to “R₁O” or “OR₂” of claim 1. Accordingly, even with *Okada* and *Haehnle*, it would not have been obvious to one of ordinary skill in the art to arrive a polyimide precursor where “R₁ and R₂ are, independent of each other, a hydrogen atom or an organic group having 1 to 20 carbon atoms including one or more ethylenically unsaturated

bond(s), provided that R₁ and R₂ are not hydrogen atoms at the same time” as recited in claim 1 without any further evidence.

For at least the aforementioned reasons, claim 1 is allowable over the combined teaching of *Okada and Haehnle*. Likewise dependent claim 3 is also allowable for at least the same reasons as claim 1. Applicants, therefore, respectfully request withdrawal of the 35 U.S.C. §103(a) rejection of claims 1 and 3.

The application is in condition for allowance. Early and favorable action is respectfully solicited. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. § 1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911.

Dated: April 29, 2011

Respectfully submitted,

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